DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003280 Address: 333 Burma Road **Date Inspected:** 07-Jul-2008

City: Oakland, CA 94607

OSM Arrival Time: 1400 **Project Name:** SAS Superstructure **OSM Departure Time:** 2330 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Li Yanhua No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG

Summary of Items Observed:

The Caltrans Quality Assurance (QA) Inspector Roscoe Dixon was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 3 – Heavy Duty Machinery Shop

The QA Inspector observed ZPMC qualified welder Dong Yi Qun ID 059450 utilizing WPS-345-FCAW-2G (2F) Repair to perform Flux Core Arc Welding (FCAW) repairs of deck panel Partial Joint Penetration (PJP) welds on DP055-001.

The QA Inspector Dixon was informed by ZPMC QC Inspector Mr. Fu Yuhong that ZPMC CWI Inspector CWI Li Yan Hua, and ABF personnel Kevin Chen were about to perform a final three party visual repair inspection on deck panels DP068-001. Mr. Fu then requested that a Caltrans QA Inspector also performed a visual inspection on the deck panel.

The QA Inspector observed ZPMC magnetic particle technician Bo Pin Rin perform and accept the final Magnetic particle Testing (MT) on the three deck panel listed above.

After an agreement was reached by all parties on the repairs which had been completed on the deck panel the QA Inspector assigned Caltrans lot number B59 and the inspection date in the space listed as (FVT) on the yellow tag which is pasted to the outside U-Ribs of the deck panels. The ABF and ZPMC personnel also signed and dated the tag indicating the inspection had been completed.

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The QA inspector observed ZPMC in the process of preheating an area which had been excavated to repair an area which ZPMC had performed ultrasonic testing (UT) and found an indication which required repair. The reject report for lack of penetration (LOP) was listed by ZPMC as B787 UT-720 and the repair reports were listed as BWR496 and BWR497.

The weld repairs were to be performed at two locations on the deck panel DP055-001 U-Ribs, one on weld number 6 and one on weld number 10.

The ABF Inspector Kevin Chen also informed the QA Inspector that the following deck panels identified by ZPMC as DP067-001 has one depth of penetration areas which has been repaired and DP015-001 has three areas, two on weld # 10 and one on weld # 3 which are being prepped for repair.

The QA Inspector informed Swing Shift QA Lead Kenneth Riley that the repair report provided to the QA Inspector from the ZPMC CWI did not have a Caltrans approved stamp.

Mr. Riley called the SMR Ady Velasco and was informed that ZPMC did not have an approved repair procedure for UT (LOP) repairs. For more information see incident report submitted for this date.

The welding in progress and final visual inspections performed on the above listed deck panel generally appeared to conform to contract specifications.

The ABF Inspector Kevin Chen informed the QA Inspector that the three deck panels listed above would be removed from the Heavy Machinery Shop Bay # 3 and transported to the Assembly shop.

The QA Inspector located and inventoried the 23 deck panels in New Tower Building Bay #3 at the beginning of the shift and during the shift the following 4 deck were removed: DP067-001,DP068-001,DP071-001, and DP072-001.

For more detail see photographs shown below:



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Summary of Conversations:

As noted within the report shown above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Dixon,Roscoe	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer